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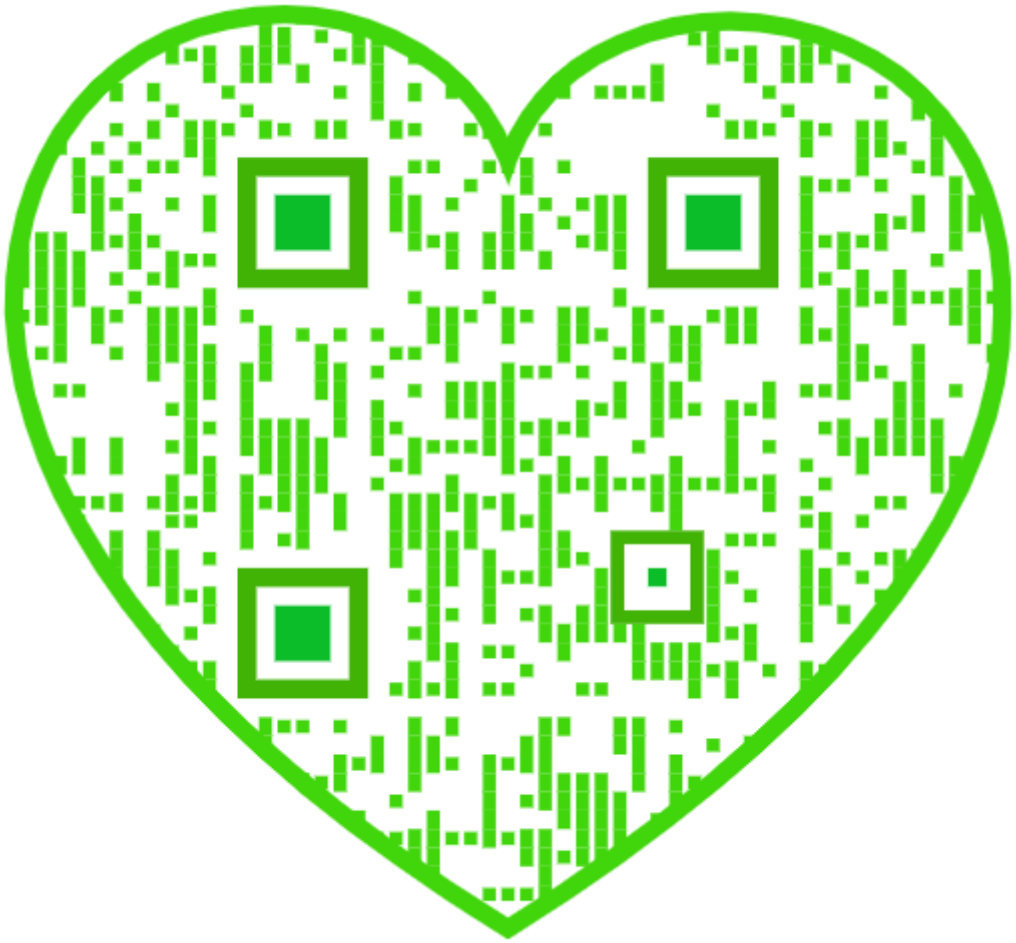

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Ontario Department of Agriculture.

HORTICULTURAL BRANCH

BULLETIN 166.

Bee-Keeping

IN

Ontario.

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BULLETIN 166.] [JUNE, 1908.

Ontario Department of Agriculture.

HORTICULTURAL BRANCH.

BEE-KEEPING IN ONTARIO.

The information contained in this report has been taken from answers to questions sent out in a circular to all the bee-keepers of the Province, dated May 15th, 1908. While the Province has been fairly well covered by the reports received, there were over 1,500 bee-keepers who did not return the blanks sent to them. Until a greater proportion of those engaged in the industry take enough interest to answer the few questions asked, it will be impossible for the Department of Agriculture to prepare as full and accurate a report as is desired.

Of the reports received, only 10 per cent. answered that the industry was carried on at all extensively, and this percentage is perhaps high, as in some cases, more than one individual so reported in the same vicinity. Others noted that while the business was once in a flourishing condition, the losses of the past two years had made a material change, and that now few large apiaries were left, while the smaller ones were in many cases wiped out of existence. The census report of 1901 gave the Province a total of 116,403 colonies, but from the information at hand, this total for the present year must be decreased at least 33 per cent. to cover the heavy loss of 1907 and 1908. These changes will doubtless tend to keep up prices for the better quality of honey, and those who have any bees left should give them special attention, as the natural increase and the surplus honey gathered will both prove sources of profit at the present time.

Very little disease was reported. While the percentage of dysentery seems high, in every case the correspondent stated that the attack was slight, generally occurring in only one or two hives in an apiary. Of the instances where foul brood was reported, in only two cases was the attack a severe one. European Foul Brood has appeared in the vicinity of Trenton in rather a virulent form, and has caused heavy losses in two apiaries.

The work of the six Inspectors appointed last year has shown itself favorably in the reports received, and the decrease in the disease has been evident. This year, the Province has been divided somewhat differently and the Inspectors' names with their districts are as follows:—

W. A. Chrysler, Chatham: Counties of Essex, Kent and Lambton.

John Newton, Thamesford: Counties of Elgin and Middlesex.

D. Chalmers, Poole: Counties of Perth and Huron.

Jas. Armstrong, Cheapside: Counties of Norfolk, Oxford, Waterloo and Wellington.

Wm. McEvoy, Woodburn: Counties of Haldimand, Welland, Brant, Lincoln, Wentworth and Halton.

H. G. Sibbald, Claude: Counties of Bruce, Grey, Simcoe, Dufferin, Peel and Muskoka.

J. L. Byer, Mt. Joy: Counties of York, Ontario, Victoria and Durham.

From Northumberland east to the boundaries of the Province, a special Inspector will be sent out to look over the apiaries at every important point. At the present time outside of the outbreak of European Foul Brood at Trenton, the Department has no definite information in respect to the prevalence of foul brood or otherwise in most of this territory, and it has been thought advisable to select a man from elsewhere in the Province who is thoroughly conversant with the disease in all its stages to make a careful investigation in the east. All suspected apiaries will first be visited, and any bee-keepers wishing to clear up any doubt as to the presence of this disease in their apiaries should send word to the Department of Agriculture at an early date.

Apiarists in other districts should report all cases of suspected foul brood either direct to the Inspector for their district or to the Department of Agriculture, Parliament Buildings, Toronto.

Reports were received from every county in the Province, but those counties where bee-keepers' associations have been organized sent in by far the largest number of answers. Evidently these associations have proved of much assistance and encouragement to those engaged in the industry, this being shown in the greater number of reports received and the care taken in answering the questions submitted.

The following data have been taken from the information received:

	Colonies.			
	100 to 400.	50 to 100.	25 to 50.	Under 25.
	%	%	%	%
Average loss in Winter	17	19	16	24
Wintered in cellar	67	53	46	44
Wintered outdoors, protected	33	44	46	50
Wintered outdoors, unprotected	.....	3	8	6
Disease reported:—				
Foul brood	5	7	7	1
Dysentery	45	33	32	17

The reports as a whole indicate that the bees wintered well, but suffered later in many localities from the cold spring The terrible losses of the previous winter are again emphasized, and it will take years to build up to the number of colonies then scattered over the country. While among the larger bee-keepers, the losses were bad enough, the smaller

apiaries will feel the loss most, as in the majority of cases almost every colony was wiped out. A great deal has been heard of the disastrous effects of foul brood and of the ravages attending this disease, but these have been trifling compared with the total losses of the past few seasons from other causes.

Much of the loss has been due to neglect and carelessness. The larger bee-keepers have specialized in this industry, and, being dependent upon it alone for their livelihood, have studied the requirements of their stock and have given their colonies the best attention. Many others have engaged in bee-keeping as a side line, and left the bees largely to themselves, except perhaps at the time of honey flow when they have taken off whatever surplus was available. Others, again, have kept from one to five colonies to produce enough honey for home use only, and these also have suffered for lack of proper attention, as their owners are generally too busy at the proper season with other farm labor to bother with them.

Yet, to the farmer who will make a business of keeping and looking after from 10 to 25 or 50 colonies, a splendid profit may be made on the necessary investment. Like every other business, care and knowledge is required, and most of the latter can be gained only by experience. Small beginnings should be made and the natural increase under favorable conditions will soon give the number of colonies required. It must be understood that the profits are as great as from any other part of the farm, provided the same care is exercised in looking after the bees as is usually given to other stock or to the orchard. In addition to the crop of honey harvested, the bees are valuable adjuncts to the proper fertilization of blossoms in the orchard and in the alsike clover fields. They take nothing from the soil or other parts of the farm yet give handsome returns for their keep.

In many parts of the Province are districts now unoccupied by bee-keepers, where larger apiaries could be kept with profit. Alsike, white clover, buckwheat, basswood and other honey producing crops are grown more or less everywhere, while in certain sections these occur in such abundance as to furnish large surpluses of honey in favorable seasons. By means of out-apiaries, from 200 to 300 colonies or over may be run in these places with good results by a person giving his time to this work.

Honey-producing crops have stood the winter well, and are growing luxuriantly. The cool, wet spring, and subsequent hot weather, have brought forth rapid growth and all prospects indicate an abundance of clover bloom. Many fields intended for spring grains, but untouched owing to the wet land, will be planted to buckwheat, ensuring a good harvest of this honey later in the season. Altogether the outlook is very promising for a good yield of all kinds of honey to those who have by care and skill carried their bees through the past two unfavorable springs.

Owing to the tremendous losses during 1907, the total crop will be much reduced even if every colony should harvest a good average of both clover and buckwheat. This shortage combined with the rapidly increasing markets in the west will undoubtedly tend to keep up the prices to

about what they were during the past season. This applies specially to the better grades, as the poorer grades are now being imported in large quantities, and can be laid down in Ontario at a very low price. As many of the careless bee-keepers have been cleaned out by disease and the cold springs, the quantity of the poorer grades will fortunately decrease. This should result in a better quality on the market and in increased consumption. Very little adulteration is being practised, and the reports of the Inland Revenue Department, Ottawa, have served to call attention to the excellent quality of our Ontario honey.

The following reports are taken from among some hundreds received and are from apiarists having 100 colonies and over:

Brant: General condition somewhat weaker in brood and bees than in the average season, but building up fast. Loss 5 per cent., due to queenlessness; wintered in cellar, put in November 20 and taken out March 25; fed sugar syrup in fall about 20 lbs. to each colony; honey crops in good condition, alsike not much grown, but good growth of white clover.

Bruce: General condition fair to good, loss during winter about 8 per cent., chiefly from failing queens; a few cases of dysentery; wintered in cellar, put in November 25, removed April 22; sugar syrup fed to make up any shortage; clovers came through in fair condition, but not much alsike grown for seed near this apiary.

Dufferin: Colonies generally weak, nearly half of brood dead, in some cases seemingly chilled brood; considerable dysentery present; bees wintered in cellar; put in November 18th, removed April 22nd; buckwheat honey fed for winter stores; alsike not cultivated to any extent; white clover wintered safely.

Dundas: Quite a number of colonies came out weak, but these are improving rapidly on good pasture and weather; loss heavy, 33 per cent., partly in cellar and remainder after being placed on summer stands; last year being such a poor honey year, quality of honey had a great deal to do with losses, some of honey having soured; wintered in cellar, put in November 18-20th, removed in April; enough surplus honey stored so did not need to feed sugar syrup; clover wintered well in this vicinity and is generally very abundant; basswood has been good source of nectar but is getting thinned out very rapidly.

Durham: General condition good; wintered in summer stands in double walled hives; loss of three colonies, queenless; crops wintered fairly well and include white clover, alsike, basswood, shumac, golden rod and buckwheat.

Elgin: Judging from my own, bees seem to have wintered well outside; neighbor wintered his in cellar and bees are in poor shape; loss 8 per cent., part queenless and balance through not being cared for soon enough in out yard; bees wintered outside, packed four in box in leaves, put in October 31st, out May 20-25th; honey for winter stores; clover came through well and prospects look good for a crop, alsike grown to large extent and white clover common, basswood pretty well cut out.

Essex: Bees came out of winter quarters in splendid shape; loss only 5 per cent., these being queenless; wintered on summer stands mostly in clamps, put in last week October, removed last week of May; honey fed for winter stores; white clover and alsike never in better condition; I work for both comb and extracted honey.

Frontenac: General condition extra good, loss 12 per cent., wintered in cave in sand hill, outdoors, put in November 1-5, removed April 15th; honey and sugar syrup fed to late made colonies for winter stores; little disease except dysentery in four hives; white clover came out fine, alsike little grown in this section.

Glengarry: Those who wintered their bees with combs from top story wintered well, others that fed sugar late did poorly; own loss 20 per cent.; too warm in cellar; bees put in November 10th, removed April 15th; all colonies finished with from 10-25 lbs. sugar for winter; considerable dysentery present; clovers wintered well and are principal honey plants.

Grenville: General condition fair to good; mostly wintered in cellars; honey fed for winter stores; quite a lot of dysentery present; clovers came through in excellent condition; other honey producing plants are, basswood, buckwheat, wild cherry, raspberry, golden rod, boneset, etc.

Grey: Bees came out weak, but doing well since; loss 20 per cent., due to starvation and spring dwindling; wintered part in cellar and balance outside packed; honey fed for winter stores; clover came through well and is main honey plant here.

Haldimand: General condition good; no loss, wintered outdoors packed in chaff and sawdust in November; part honey and part sugar syrup fed for winter stores; clovers came through fine, a lot being grown here.

Halton: Colonies in good condition; loss about 7 per cent., due to old queens and queenlessness; wintered two-thirds in cellar, balance in separate hives, packed with sawdust on summer stands; put in November 20th, out April 14th; winter stores, sugar syrup; clovers wintered well; alsike, white clover and basswood being the only plants to give any surplus; alsike grown more largely this season.

Hastings: General condition only medium, spring has been cold and wet; loss 14 per cent., due largely to flooding of cellar, causing dysentery; put in cellar November 29th, removed April 22nd; honey fed for stores; white clover rather good shape; alsike poorer, we depend on clovers and buckwheat for our crop.

Huron: General condition fair to poor; some wintered well, others had considerable loss through cold and queenlessness, wintered outdoors in clamps, honey with a little sugar syrup fed for winter stores; clovers came through fine; alsike and white clovers being grown extensively.

Lambton: General condition good with few losses, only 4 per cent., in own apiary; wintered in clamps packed in dry sawdust, put in November 1st, removed May 1st; no disease present; clovers came through winter all right; raspberries and basswood also give surplus honey.

Lanark: Colonies in poor condition, heavy losses general; 40 per cent. in this apiary, due largely to starvation; no honey gathered after July of 1907; wintered in cellar, put in November 10th, removed April 17th; clover wintered well, but not much alsike grown; very large crop of dandelions in spring.

Leeds: Colonies in fairly good condition notwithstanding continuance of cloudy and rainy weather; loss 9 per cent.; bees wintered in cellar, put in November 8th, removed April 20th; sugar syrup largely fed for stores in this vicinity; some few colonies showed presence of dysentery; white and alsike clovers suffered badly from drought of 1907, but the rains of this spring have brought the clover into nice condition.

Lincoln: General condition good; no loss whatever; bees wintered partly in cellar, and partly outdoors packed in cases; stored November 28th, out again March 25th; sugar fed to make up what bees lacked in natural stores; no disease present except a little dysentery; crops wintered very well, these with a little basswood being only sources we have here for surplus honey.

Manitoulin: General condition poor; loss 33 per cent. from dampness in cellar and lack of queens; bees were put in November 15th, taken out May 5th; clovers came through winter in very poor condition.

Middlesex: Some loss reported among small bee-keepers; none in our apiary, and bees are in grand condition; colonies wintered on summer stands packed in clamps, four in each clamp; put away first part of October, and unpacked on 18th of May; bees were fed on sugar syrup, which is the best stores one year with another, no signs of disease present; we are very well supplied with both wheat and alsike clover, both at home and out-yard; these crops never looked better.

Muskoka: General condition very good, but loss about 20 per cent.; were re-queened heavily last fall and some were queenless this spring, this being particular cause of loss; bees wintered in clamps on summer stands packed in four inches forest leaves with some fine sawdust; bees were placed in clamps about October 1st and removed May 20th; sugar syrup fed for winter stores; clovers in good shape and grown to quite a large extent.

Norfolk: Bees came out in fair condition; loss 4 per cent., due to experimenting in swarming; bees wintered in basement of stock barn partitioned off by themselves; bees housed December 30th, set out April 7th; no winter stores necessary as the colonies averaged 30 lbs. honey each when put in; all clovers came through winter in good shape; this is a white clover locality but farmers have just nicely started in alsike.

Northumberland: Colonies strong; loss 9 per cent., caused by old queens, and in some cases by spring dwindling; bees wintered in cellar put in December 1st, taken out April 5th; each colony fed 10 lbs. of sugar syrup for winter stores; clovers wintered well and are grown to quite an extent.

Ontario: General condition fairly good; loss in my apiary 8 per cent., due largely to old queens; bees wintered one-half in cellar, others in

special cases made to hold two hives each with 6 inches sawdust; cases have slide cover in front to take out when putting hives in on the level; buckwheat and goldenrod honey given as winter stores; no disease present; alsike in good condition, but early frosts in 1907 killed half of the clover in our neighborhood; had to plow up 14 acres, and have only 10 left which was double seeded.

Oxford: Bees in fine shape; practically no loss; put in cellar from the 25th November to 10th December; no winter stores required; no signs of disease this spring; clovers came through the winter in good shape and other bloom is abundant.

Peel: Bees in fairly good condition, much better than last year; loss in my own apiary rather heavy, due to the dry fall, and on that account bees were not in good shape for winter; bees wintered outdoors in boxes, three hives to a box covered all around sides with 4 inches of leaves and with 6-8 inches of leaves on top; put in case early in November, taken out May 15th; sugar syrup fed quite largely for winter stores; some dysentery present; clover seems to be plentiful; alsike grown considerably but no other crops this season on account of dry weather.

Perth: General condition very good; loss through shortage of supplies 15 per cent.; wintered in single clamps packed with forest leaves put in about the 1st November, removed May 16th; honey fed for winter stores; foul brood in five colonies; clovers are all right; alsike grown to quite an extent; very little buckwheat, plenty of basswood when it yields.

Prescott: Bees in fairly good shape; loss 10 per cent.; wintered in cellar, put in November 8th, removed April 18th; sugar syrup fed for winter stores; some signs of dysentery among six colonies; wintered on honey alone; clovers came through fine, large amounts grown here, also basswood.

Prince Edward: Most colonies dead; what few are left in good condition; very backward in building up on account of cold spring; loss 65 per cent.; honey crop total failure here in 1907, many bees starved owing to long confinement and no fight from November 8th to April 23rd, and bees flying out up to May 18th perished owing to cold winds and rain. Bees wintered in repository above ground; put in November 8th, removed April 23rd; sugar syrup fed for winter stores; clovers came through in good shape, prospects good; plenty of alsike and clover, and some buckwheat grown.

Renfrew: Colonies only in fair condition; loss here 30 per cent.; wintered in cellar, put in about November 15th; sugar syrup fed for winter stores, clovers came through in good shape.

Russell: Bees are in good condition now; about 15 per cent., loss caused by want of stores and queenless colonies; wintered in cellar, put in November 12th, taken out April 23rd, about ten days later than usual; sugar syrup fed if necessary with about one-third honey; a few colonies showed signs of dysentery in the spring; all kinds of clovers came through in fine shape.

Simcoe: Colonies having enough honey were in good condition; loss here 20 per cent., due to shortness of stores; wintered in cellar, put in 8th December, taken out second week in April; about 40 lbs. of honey left with each colony in the fall; foul brood in two hives; owing to trying season last year, clover crop is very small, about 20 acres within reach of my bees; not as much clover grown as formerly.

Victoria: Strong colonies are building up fairly well and weaker ones held their own, very weak ones dwindled badly on account of cold and wet; loss in six apiaries here 40 per cent.; wintered in clamps, four in clamp with 3 inches dry sawdust around and 6 inches on top; most of us found enough fall honey in the hives for winter stores, but where fed with sugar syrup, the queens are mostly alive now; the queens that died had more or less dysentery; foul brood present in this vicinity; alsike looks well generally, about ten acres grown on each farm; no white clover sown.

Waterloo: Only in fair condition; loss 20 per cent., caused by dysentery, and in some cases by starvation; bees partly in cellar and partly outside packed in chaff, four colonies in the case; put in cellar November 26th, removed on April 6th. Bee-keeping badly neglected here owing to failures of the last few years; not enough sugar fed, mostly honey; on account of dry fall last year, there is not much white clover; alsike looks good but more should be raised.

Welland: General condition good, and losses 5 per cent., caused by starvation and queenlessness; wintered in cellar, put in November 16-29, removed April 10-14; fed on sugar for winter stores; dysentery showing in colonies; clovers wintered well, white plentiful, not much alsike and no buckwheat here.

Wellington: General condition fairly good; loss 12 per cent. from dysentery; wintered in cellar, put in November 20th, out April 25th; fed on honey for winter stores; clovers fairly good shape, alsike grown to a considerable extent.

Wentworth: Colonies in good shape; loss 15 per cent., due to starvation and failing queens; wintered partly in cellar and partly outside, packed in chaff; poorest colonies among those from the cellar; put away November 20th, started putting out on the 12th March, a few each day that was suitable, finished about April 1st; winter stores largely buckwheat honey, but also fed 300 lbs. sugar; some little signs of dysentery owing to cellar getting too warm; white and alsike clover never looked better.

York: Colonies seem in fair condition; loss 12 per cent. here, due to dysentery and spring dwindling; part wintered in cellar, balance outside in double hives packed with sawdust; put away latter part of November, taken from cellar early April; sugar generally fed for winter stores, but small quantities of honey mixed with it; some swarms showed dysentery; alsike clovers in very good shape, and this is about the only crop grown here.

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